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Report of the Senate Ad Hoc Committee to Review the Impact of Charging Graduate Tuition on Grants

I. Summary

Using the best available information, we estimate that about \$2.5 million in new revenue could be acquired, and a reduction of 25% in the number of research assistants could result, if the tuition waiver for graduate research assistants is eliminated. This estimate takes into account the fact that some major granting agencies do not allow tuition charges, and that there are maximum funding levels (caps) at some agencies that do allow tuition charges. The estimate of realized new revenue is generous; it is biased high to an unknown degree because it is not possible to account for how the tuition waiver affects the incentive to support graduate students on grants.

Many, if not most, major universities charge at least a portion of in-state tuition to grants. Comparing the expense of supporting graduate students on grants among institutions that are ranked in the top 25 reveals that at present, with the tuition waiver, the University of Connecticut is close to the median. Elimination of the tuition waiver would make the University of Connecticut one of the most expensive institutions for support of graduate students on grants.

Eliminating the tuition waiver could have multiple repercussions on academic programs. Incentive to support graduate students would shift in favor of supporting other personnel, such as postdoctoral associates. A decrease in the total number of graduate students at the university could negatively affect research productivity and competitiveness, and could adversely affect some worthy graduate programs. Increases in the degree to which graduate programs rely on teaching assistantships for support would have a negative effect on graduate research productivity.

A survey of University of Connecticut faculty indicated widespread opposition to eliminating the tuition waiver. The survey indicates the expectation that there would be reduced graduate support on grants, and reduced availability of grant funds for other research expenses.

If the tuition waiver is to be eliminated, a policy of levying a fixed proportion of full-time, in-state graduate tuition is preferred over other possible policies. Imposition of GRA tuition and fees charges on grants must be flexible and should include a review and appeals process for retention of the tuition waiver in some cases.

If the tuition waiver is to be eliminated, revenue that is gathered from tuition charges should be used for new expenditures in research or graduate education rather than replacement funding to offset other sources. A means to maintain transparency and accountability in this allocation process is essential.

Faculty and student members of the ad hoc committee are firmly opposed to the proposal to eliminate the tuition waiver for graduate research assistants. The current system of tuition waivers represents a substantive institutional commitment to research and graduate education. Given the institutional context (relative expense of supporting graduate students) and current funding climate (decreasing agency support and poor economic state), we do not feel that the proposed policy would result in net benefits to the University of Connecticut.

II. Introduction and charge of the committee

The concept of eliminating or modifying the waiver of graduate tuition for GRAs on grants has been discussed within the Provost's office for several years, but no documentation of these discussions is available.

The Academic Plan that was completed in 2008 explicitly indicates an interest in examining the tuition waiver policy. Goal 6 of the Academic Plan, under the heading "Administrative Organization, Capital Infrastructure, and Budget Processes" is to "Establish administrative, infrastructural, and budget systems designed to efficiently realize the goals of the Academic Plan". Strategy C within Goal 6 is to "Pursue new revenue streams while refining existing budget processes". One of the items within Strategy C is to "Ensure that we are appropriately budgeting the costs of research and education programs in accord with the allowable costs articulated in our federal, state, and agency agreements, including indirect costs and the costs of supporting research assistants, while remaining competitive in our pursuit of extramural funding to support the goals of the Academic Plan".

Public forums regarding the academic plan that took place in the spring of 2008 alerted the University community of the possibility that tuition waiver policy might change and stimulated reactions of several legislative bodies. In February 2008, the Research Advisory Council adopted a statement (Appendix A) that detailed multiple negative consequences would result were the tuition waiver to be eliminated. The Executive Committee of the Graduate School (on 5 March 2008) and the Graduate Faculty Council (on 16 April 2008), passed on voice votes the following resolution:

It is the sense of the Graduate Faculty Council that the introduction of tuition for graduate assistants would adversely affect the programs of the Graduate School and is inconsistent with key goals of the draft Academic Plan. We agree with and support the position of the Research Advisory Council statement regarding these waivers. We therefore urge that the policy of waiving tuition be continued.

A draft policy document clarifying how the cost of graduate students could be captured in external funds was circulated in June of 2008. It stated that the plan would ...simply require that if a faculty member submits a research funding proposal to a federal funding agency¹ that includes in the direct costs support for graduate research assistants, then the direct costs of the proposal should also include the in-state tuition for all such graduate assistants, *provided this is permitted by the funding agency* [emphasis in original]. The plan calls for no other changes. The University would continue to provide tuition waivers for graduate teaching assistants and for graduate research assistants employed on state or local funds or from federal agencies that do not permit tuition to be charged on the direct costs of a grant.

Further documentation distributed by the Provost to this committee indicated that the change would be initiated for new grant proposals submitted after June 30, 2009. There would be no mandatory tuition charges levied on grants awarded prior to that date.

¹ Limitation of the proposed change to federal agencies in this document was an error, the proposed change was intended to apply to all external funding sources that permit the charge of graduate tuition to grants

The proposed change in tuition waiver policy was presented to the Senate by President Michael Hogan on 28 April 2008. Following this presentation a motion from the Senate University Budget Committee was passed by the Senate. In its amended form the motion read: The Senate University Budget Committee moves that the Senate Executive Committee and the Administration create a task force to examine the financial viability of the recent proposal to charge graduate student tuition to grants or other sources² and the resulting budget financial and academic impact on the total university. The task force would be comprised of representatives from the Senate, Graduate Faculty Council, Research Advisory Council, Graduate Student Senate, and appropriate Administration members. The task force will report back to the Senate by Spring 2009.

Appointments were made to the committee in May. The committee included representation from the office of the President, the Provost, faculty representation from multiple schools and colleges, and the Graduate Student Senate (Appendix B). The committee was initially chaired by the Provost. After discussing progress on the review of the proposal with the Senate Executive Committee, the Provost agreed to recuse himself from the ad hoc committee. Schultz and Singha agreed to serve as co-chairs on 6 November 2008.

The remainder of this report addresses the charge of the Senate's resolution in several sections. The financial impact of the proposed change is analyzed in Section III, wherein we estimate the additional revenue that would be captured if tuition was charged in grants from sources that permit such a charge. In Section IV, we focus on alternative ways of charging tuition to grants, and suggest means of implementation should the policy change be adopted. Subsequent sections consider academic impact as well as financial impact. Because the academic growth of the institution is affected by the relative expense of conducting research at the University of Connecticut in comparison to its peers, we present an analysis of GRA costs at selected research-intensive institutions, along with metrics of graduate enrollment and federal funding for research (Section V). The academic impacts on the University of charging tuition to grants are considered in Section VI.

III. Financial impact of eliminating tuition waiver at University of Connecticut

To estimate the revenue that would be realized with a change in policy, we began with an account of how many GRAs are supported in various units (Table 1). This accounting was done in the fall semester of 2007. At that time there were almost 600 GRAs on campus, in eight academic and two administrative units. The tuition costs for these GRAs, which appear in University financial statements as potential revenue lost to the Operating Fund, total more than \$9 million³. This represents a starting point for our estimate of revenue potential if the blanket tuition waiver policy were eliminated. This starting point is listed as Scenario 1 in Table 2.

As a starting point, Scenario 1 assumes that tuition is recovered from all GRAs, i.e. that all GRAs are supported on grants from agencies that permit tuition charges as an allowable cost (Table 2). To make realistic adjustments away from this assumption, an exhaustive study of

² An amendment to add 'or other sources' was introduced by Senator Sally Reis, to cover support for GRAs that originates from the University of Connecticut Foundation.

³ Tuition charges assessed to the General Fund used actual credit enrollment of each student and varied according to whether the student was in-state, out-of-state or international.

sponsored grants was conducted to determine if the sponsoring agencies had a declared policy on charging tuition on grants. The information was compiled by matching each student with his/her funding source and on the number of credit hours for which each student was enrolled. We found that more than 350 GRAs are supported on grants in which tuition is an allowable cost. About 50 are supported on grants in which tuition is not an allowable cost. The remaining 182 GRAs are supported on grants from agencies whose policy on tuition charges was not immediately evident. In lieu of contacting many agencies for clarification, we assumed that tuition charges would be permissible on half of the remaining GRAs. As a result of these adjustments, Scenario 2 (Table 2) assumes that there are about 460 GRAs on whom tuition could be charged. In another adjustment, Scenario 2 incorporates the Provost's agreement that tuition charged to grants will not exceed the full-time in-state rate. These adjustments reduce the revenue that would be realized by eliminating the tuition waiver to about \$3.25 million.

Scenarios 1 and 2 assume that eliminating the tuition waiver would not change the number of GRAs. Two limiting factors could cause the number of GRAs to decrease if the tuition waiver were eliminated. The first limiting factor, which we can account for in our scenarios, is that grant amounts at many agencies are capped; in such cases, an increase in one charge category will occur at the expense of another category. Caps can be placed on the total grant request, or on personnel costs (e.g. NIH limits total GRA compensation to the amount paid to postdoctoral associates; grants.nih.gov/grants/guide/notice-files/not98-168.html). To account for this limiting factor, we have assumed that in 50% to 75% of the grants, the student request is reduced so that the total grant request remains unchanged. The 50% to 75% figure was based on the type of research grants, and on feedback from researchers and program officers. It should be noted that the revenue realized by charging tuition for each GRA is partially offset by reduction in IDC, as grant expenses shift from categories that are subject to IDC charges into tuition, which is not subject to IDC. Hence, the effective revenue to the university is 68% of the tuition charged. The reduction factor of 68% was verified in 15 randomly selected grants. With these adjustments, Scenario 3 (Table 2) projects the revenue that can be realized by eliminating the tuition waiver to \$2.5 million to \$2.75 million. The corresponding reduction in the number of GRAs would be 110 to 165 (from a total of 600, a reduction of 18% to 28% of GRAs).

A second limiting factor that could cause the number of GRAs to decrease if the tuition waiver were eliminated is reduced incentive of PIs to support graduate students on grants. In other words, charging tuition to grants will make graduate students more expensive and may affect their value to sponsored research relative to other personnel categories, such as technicians and post-docs. We have not incorporated this factor in the revenue scenarios of Table 2 because there is no basis for quantifying how great the change in incentive may be. Nonetheless there is evidence that elimination of the tuition waiver will have a potent negative effect on GRA support (see Section VI). *Therefore the scenarios presented here must be regarded as generous projections of the revenue that might be captured were the tuition waiver to be eliminated.*

Scenarios 1-3 assume that the charge structure for tuition is unchanged. Some institutions charge a lower rate for GRAs that have passed doctoral qualifying exams and other requirements for degree candidacy. About 25% of GRAs at UConn are candidates for their degree. Scenario 4 (Table 2) envisions a tuition charge for candidate students that is 50% of the pre-candidacy rate. This scenario projects the revenue that can be realized by eliminating the tuition waiver for University of Connecticut graduate students to about \$2.2 to \$2.4 million.

The financial support of graduate students affiliated with the UConn Health Center differs from that of students on the main campus. The Health Center has about 150 PhD students, 140 of which are supported on grants. All PhD students on the Farmington campus are admitted as GRAs; approximately 40 GRAs that exclusively support 1st and 2nd year students are available through the Graduate Programs Committee (GPC). The remaining GRAs are funded by faculty grants, training grants (16), or individual awards to students as Individual National Research Service Awards. The assistantship includes a stipend (projected to be \$27,500 for fiscal year 2010), student health plan and, currently, a waiver of tuition and the majority of fees. In keeping with NIH guidelines, the Health Center currently recovers 60% of tuition costs from training grants as well as individual NRSAs. These monies are used by the GPC in support of the graduate program. We estimate that elimination of the tuition waiver would yield slightly more than \$200,000 (Table 2).

IV. Consideration of alternative methods of charging tuition to grants

Judging from a review of top universities and colleges (see Section V), there are four general categories of policy regarding tuition charges. The policy that is currently in place at the University of Connecticut permits a complete waiver of graduate tuition on all grants, even if tuition is an allowable cost on a proposal.

A second approach is referred to here as the *Actual Costs* approach. At such institutions the real costs of in-state tuition and fees for graduate assistants funded by a grant are required on budgets of all extramural grants and contracts, provided that these are allowable costs. The charge varies with the grade of the student's position (i.e. what UConn refers to as the level) and whether the student is a resident or nonresident. For example, at UCLA "[GRAs] appointed at 25% time or greater qualify for [100%] fee remissions The hiring department is responsible for paying these fee remissions from the same account-fund as the salary source.....[nonresident GRAs] qualify for nonresident tuition remission..... The hiring department is responsible for paying the nonresident tuition remission from the same account-fund as the salary source". Note that this requires adjustment of the budget if student(s) changes status.

In the *Projected Average Costs* approach, a University-determined tuition and fee recovery rate is required on all extramural grants and contracts supporting graduate assistants, provided that these are allowable costs. The university finance office and/or research administration office establishes the required level of tuition and fees that must be charged to grants and contracts. The established level of recovery is based on an estimate of current and future average tuition and fees that would be charged to students funded on grants, taking into account such factors as mix of pre-candidacy and in-candidacy students and differential tuition rates across programs over the life of grants. For example, at the University of Michigan "Resident tuition and fees are charged to sponsored accounts on the basis of the per term figures established by the Board of Regents.... [to] facilitate the preparation of budgets, sponsored projects are charged average tuition rates regardless of the number of credit hours for which the [GRAs] are enrolled". Note that this approach does not require adjustment to the budget if the student(s) change(s) status.

In the *Unit Decision* approach, departments have the option of charging tuition and fees to extramural grant budgets (and level of charge), but departments are charged tuition and fee costs for each student appointed as a graduate assistant (irrespective of funding source) by the Graduate School or other central administration unit. This is often used as part of a

Responsibility-Centered Management (RCM) budget approach, in which the responsibility of generating revenue through tuition charges lies with the unit, as does the allocation of service and administration costs. The goal of such a budgeting scheme is to increase revenue while decreasing costs through unit planning and unit-level control on tuition fees and enrollment.

If the complete tuition waiver were discontinued, we regard the Projected Average Costs approach as most suitable for the University of Connecticut. An important advantage of this policy is the simplicity of implementation. In contrast to the Actual Costs approach, grant budgets would not change when a student changes status (for instance, upon attainment of degree candidacy or state residency) or with changes in credits enrolled. Unit Decision budgeting would confer the benefits of local control over decision making but would not evidently be feasible to implement at the University of Connecticut. Projected Average Costs budgeting would require only that a PI estimate tuition charges on a grant based on a head count of GRAs. The charges to be levied on grants could be some proportion of full-time pre-candidate tuition rather than the full amount, reflecting the expectation that some GRAs will have achieved candidacy (which at many institutions results in a considerable reduction in tuition and fees charges, see Section V).

If the proposed elimination of the tuition waiver were to be implemented, imposition of GRA tuition and fees charges on grants must be flexible. Graduate fellowships present one area in which such flexibility is needed. Fellowships often provide only partial support and are typically supplemented with partial Teaching Assistantships or partial GRAs. Subjecting grants to the same tuition charge as a full GRA would be unfair and would have a detrimental effect on desirable fellowship funding. Therefore there must be some provision for proportionate tuition charges in these cases, or full waivers. At the same time, providing students with only partial support in total as a way of reducing tuition payments budgeted to a grant should not be allowed. Tuition waivers should remain in proposals going to agencies that require institutional or state match, which is often a substantial portion of the overall grant amount. The GRA tuition waiver has been an important source of such match for PIs, and should remain available. Another consideration is the size of the grant. Smaller grants have fewer degrees of freedom to absorb other costs; for instance, if grants are capped to relatively low amounts a PI may be forced to choose between supporting a GRA and having adequate supplies for the research.

Because it is not possible to anticipate all circumstances in which PIs would have a legitimate justification for retaining a tuition waiver, a review and appeals process should be established. This could be a separate tuition waiver appeals committee or an existing body such as the Research Advisory Council. Decisions need to be made on timely basis so the group needs to meet regularly and/or act swiftly.

V. Comparative analysis of graduate tuition practices

We conducted an analysis of the tuition charge policies of other institutions that are ranked among the top 25 public institutions (as identified by U.S. News and World Report⁴,

⁴ The Aspiration and Values section of the 2008 Academic Plan states “[O]ur aspiration is to emerge as one of the top-20 public universities in the nation.” The position of the University in the U.S. News and World Report rankings is a matter for discussion every year upon release of the survey; in 2003 and 2007 the University of Connecticut was ranked among the top 25, and in 2008 UConn is in a four-way tie just below this group. The President and Provost have recently suggested (“Administrative Update”, e-mail to UCONN_FACULTY-L@LISTSERV.UCONN.EDU, 12/11/2009) that U.S. News and World Report rankings of individual graduate

<http://colleges.usnews.rankingsandreviews.com/college/national-top-public>). Information on these policies and other institutional attributes (Table 3) was solicited via phone contacts with institutional representatives in offices responsible for grants administration, budgeting and/or graduate schools. In some cases these contacts yielded memos reflecting institutional policy, while in other cases yielded only verbal communication of current practices. The data in some cases represent a selected scenario within the institution. For instance, graduate stipends can vary among programs within an institution, and in an effort to standardize the comparison we have tabulated the stipend for students in the natural sciences. Footnotes in the table provide annotations for other variables. Because it has a pronounced effect on the costs of supporting GRAs, the table includes data on graduate student unionization.

The top institutions vary in their tuition charge policy. The Actual Costs approach is employed at a slim majority of the institutions. Five institutions follow a Projected Average Costs approach, and six of the institutions use Unit Decision (RCM budgeting). Two institutions in this group, William & Mary and the University of Connecticut, do not require tuition charges on grants as a matter of institution-wide policy.

Tuition rates (including fees) were compared assuming a full-time pre-candidacy in-state rate. Among the institutions listed in Table 3, tuition at the University of Connecticut is above the median (8th highest out of 26 institutions tabulated). The other institution that does not currently require tuition charges on grants, William & Mary, is 9th.

Many institutions have a different rate for pre-candidacy and in-candidacy students. Usually the candidate rate is lower than the pre-candidate rate. The candidate rate is levied to students who have completed all coursework and passed their comprehensive or field exams. Such students may not take formal coursework, although in many instances they are registered for “dissertation” or “research” credit hours⁵. For the institutions listed in Table 3, a separate tuition and fees charge for candidate GRAs is listed. In almost half of the institutions listed (including the University of Connecticut), students who are supported on GRAs are not eligible for the candidate rate, and the number of semesters that a student can pay the reduced rate is limited. A limitation that applies at some institutions to students supported on GRAs but paying candidate rates is that the student must pay for health benefits, and has no access to institutional facilities. Such cases are indicated on Table 3.

We collected additional information on the differential between pre-candidate and candidate tuition charges at a broader set of 20 public universities⁶. These data indicate a sharply reduced tuition charge for GRA degree candidates at many of these institutions. At other institutions (e.g. University of Colorado) there is no tuition waiver for GRAs but the number of

programs at UConn may be used to identify those that should be protected in budgeting for the next fiscal years. Because this analysis was begun in Spring 2008, it uses the 2007 rankings.

⁵ In some instances, candidate tuition and fees are based on reduced registration, and as a result, students are no longer considered full-time; this may compromise the visa status of international students.

⁶ University of Cincinnati, Colorado State University, University of Illinois Chicago, **University of Illinois Urbana**, University of Indiana Bloomington, Iowa State University, **Kent State University**, Michigan State University, University of Minnesota Duluth, University of Minnesota Minneapolis, **University of Missouri**, **Montana State University**, **Ohio University**, **State University of New York Stony Brook**, **University of Massachusetts**, University of Louisville, **University of Toledo**, University of Utah, **Wayne State University**, University of Wisconsin Milwaukee. Institutions in which GRAs are eligible for reduced rates are indicated in bold.

credits on which the tuition is calculated may be reduced for post-candidacy students who are not subject to visa restrictions.

Other grad RA charges are listed in Table 3 assuming the minimum level of the GRA. At the University of Connecticut, stipends (ranked 10th highest), fringe rates (2nd highest), and F&A charges (two way-tie for rank of 10th/11th highest) are also high.

The cost of putting GRAs on grants is compared across the institutions in Table 3 by adding these charges according to institution policy. Hence, the cost to a proposal submitted to agencies where graduate student tuition is an allowable cost was estimated by adding graduate student stipend, fringe, F&A charges, and tuition if the institution or unit (for Unit Decision institutions) permits. Comparison among institutions is conducted for both pre-candidate and candidate GRAs. In the latter case, the candidate GRA cost is less than the pre-candidate GRA cost only if the institution GRAs are eligible for the reduced candidate tuition rate.

Under the present policy (full tuition waiver), the total GRA cost at UConn is close to the median of the top public institutions listed in Table 3. The present cost of a GRA at the University of Connecticut is slightly above \$36,000. For pre-candidate GRAs, the cost at UConn is 15th highest (13th highest among the 21 institutions that have an institution-wide policy, i.e., non-Unit Decides institutions). An increase of \$1100 in pre-candidate GRA costs per academic year would locate UConn at the median of the top public institutions. For candidate GRAs, the cost at UConn is at the median (13th highest of the 26 institutions listed, median = \$36,160; 11th highest of the institutions with an institution-wide policy).

Under the proposed policy wherein graduate tuition would be added to the charges, the cost for a GRA at the University of Connecticut would be above the median. The cost of a GRA at the University of Connecticut would be slightly above \$46,000. That cost would place UConn as the 7th highest of the pre-candidate costs among all institutions listed in Table 3 (5th highest of the institutions with an institution-wide policy). That cost would place UConn as the 3rd highest of the candidate costs, among all institutions listed in Table 3 as well as the 21 with an institution-wide policy.

Our review of top institutions included data on graduate program size and trends in federal funding. Comparison of graduate program size was conducted in response to concern that charging graduate tuition to grants will reduce graduate student enrollments. Two statistics were used for this comparison, the present ratio of graduate students to full-time faculty and the change over the last 5 years in graduate enrollment. The University of Connecticut is presently ranked highly in both of these metrics (6th and 5th respectively). With respect to recent changes in federal funding, the University of Connecticut is below the group median (22nd). Whether eliminating the GRA tuition waiver has had a detrimental effect on graduate enrollment or federal funding at these institutions cannot be assessed from these data, because information on these statistics during the period prior to waiver elimination is not available.

VI. Potential academic impacts of implementing proposal to eliminate GRA tuition waiver

A consequence of charging tuition on grants is that the incentive to support graduate students on grants will decrease relative to other costs. A comparable alternative use for grant funds would be support of postdoctoral associates. To evaluate the relative costs of GRAs and postdoctoral associates, we estimated the 100%-time (40 hours per week) equivalent of a GRA⁷. The full-time equivalent of a GRA costs a little more than \$97,000 without the tuition charge, and a little more than \$117,000 if tuition is charged to the grant. In comparison, a postdoctoral associate costs a little more than \$71,000⁸. Hence, GRA assistance for research is already 36% more expensive than a postdoctoral associate. With the tuition charge, GRA assistance with research would cost 64% more than a postdoctoral associate⁹. As a result of this higher cost, some shift in the character of the research workforce towards postdoctoral associates and away from graduate students seems inevitable. We note that there may be unanticipated changes in the quality of this workforce as a result of this shift; one concern is that the Storrs region is not as attractive to postdoctoral associates, who have different needs than graduate students. Another consequence, given the reduction in the proportion of graduate students who are supported on GRAs, is that the proportion of students who are supported on TAs will rise (although the number of students who are supported on TAs is not likely to rise as it is dictated by the size of the undergraduate student body). This may have the effect of increasing graduate time to degree.

A survey was conducted of University of Connecticut faculty in December 2008 and January 2009 to characterize reactions to the proposed elimination of the tuition waiver, and to assess possible academic consequences. More than 400 faculty participated in the survey, comprising more than one-quarter of the faculty at the University.

Responses from the survey came from a diverse range of faculty (Table 4). Liberal Arts and Sciences faculty comprised the majority of respondents, and there was strong participation from faculty in the School of Engineering, College of Agriculture and Natural Resources, and the Neag School of Education. Most respondents were full or associate professors. The respondents were research active; more than half generate more than \$100,000 in research revenues each year. A plurality is funded by federal agencies. Most have at least three graduate students at present and graduated at least three students in the last five years.

Respondents recognized that tuition charges were permitted by funding agencies. Most felt that at least some of the agencies supporting their research permitted tuition charges on grants (Table 4). Of those that had an opinion, only 24% felt that none of the agencies permitted tuition charges.

Perceived academic consequences of eliminating the tuition waiver include reductions in graduate support and other changes in the workforce. Survey responses provided strong evidence for reduced employment of GRAs. Of those respondents who had an opinion on the question (who were four-fifths of the respondents), 93% predicted that they would support fewer

⁷ Calendar year stipend of \$25,090 plus fringe benefits at a rate of 26.6% during the academic year and 7.7% during the summer, plus F&A costs, multiplied by 2.

⁸ Stipend of \$36,996 plus fringe benefits at a rate of 26.6% during the calendar year plus F&A costs.

⁹ NIH places a cap on GRA compensation so that it does not exceed the total compensation for a postdoctoral associate. Our estimate of GRA costs with tuition may exceed this cap.

GRAs if the proposal to end tuition waivers was implemented (Table 4). This concern about potential reduction in support extended to Masters students (89% of those with an opinion predicted reduction in masters student support). Responses were less clear-cut with respect to changes in postdoctoral support. A relatively high percentage (28%) responded with no opinion. About as many responded that their proposals would include fewer postdocs or the same number as those that responded they would support more postdocs (Table 4).

Survey results indicate a widespread feeling that tuition charges would reduce funds available for other uses in grants. Nine-tenths of respondents had an opinion on this question; of those 96% predicted that funds available for other grant expenses would decrease (Table 4).

A portion of the survey was designed to assess opinions of how GRA tuition and fees that are recovered in grants should be allocated. The Provost has agreed that all revenues collected through GRA tuition charges would be expended in support of graduate education and research. Most respondents (81% of those with an opinion, 73% overall) feel that funds for graduate student recruitment are inadequate. When presented with a range of possible uses, there was most enthusiasm for allocating the funds to existing graduate student support as RAs or fellowships (60%-70% ranked as highest or next-to-highest priority). There was slightly less support for returning the funds to PIs or the PI's academic unit (54% ranked as highest or next-to-highest). There was weak support for using the funds for faculty start-up packages, equipment grants, or honors student research; in each case the proportion of respondents who viewed these uses as lowest priority exceeded those who viewed them as highest priority. Respondents were also encouraged to suggest other uses for the funds. Nineteen respondents reiterated support for graduate student programs and suggested various kinds of fellowships, awards, or additional TA support. Fifteen reiterated or clarified support for returning the funds to PIs or the PI's academic unit. Ten comments detailed how funds could be used for postdoctoral support, visiting professorships or more widely distributed support for faculty. Two suggested that the funds could be used to improve grant administration. One respondent reported that institutions have had to pay penalties for using tuition recovery fund for some of the allocations listed in the survey (e.g. start-ups, honors programs).

The task force agrees that funds should be used for graduate student support. We emphasize that these new revenues should be used for additional support of graduate education and research, rather than as replacement funding to offset losses of funding from other sources. It would be important to maintain accountability and transparency in these uses of graduate tuition funds.

An important issue regarding use of funds that would be recovered should the proposal be implemented is how funds should be allocated among larger University units. One guiding principle should be fair return of the funds to those that generated the GRA support. For instance, any monies generated by Health Center faculty should be returned to the Health Center for use by the Graduate Programs Committee to further research and graduate education. Any monies generated by Storrs faculty would remain at Storrs. Within the Storrs campus, there also are various possible strategies for allocating the money for research. One suggestion was to use the existing formulas used by the RAC for large grants. Another suggestion is to return money to colleges, or even to departments that generate the funds.

Faculty members of this committee concur with survey respondents that there are potential negative academic impacts of the proposal. To document whether concerns about

negative repercussions are widely felt, the survey included an invitation to make general comments about the proposal to eliminate the graduate tuition waiver. We received more than 200 such comments through the survey, and additional direct communications via e-mail. Rather than including each comment in the report, we identified themes that we summarize here. These themes should be regarded as reflecting the consensus of faculty members of the task force.

The major concern is that the implementation of charging tuition to grants will be detrimental to research programs at the University of Connecticut. This view predicts that the policy will decrease the amount of dollars available for research due to formal (hard) or informal soft caps in funding. As stated by one respondent: “As a former NSF program officer, I can assure you that....adding a tuition line to a grant will not lead to the awarding of larger grants but only to a reduction in other lines in the grant”. Such reductions in grant-supported resources will affect research productivity, and decrease the research competitiveness of UConn. Similarly, charging tuition to grants will reduce motivation for doing research and will result in the loss of competitive faculty. Many respondents expressed a serious concern that the implementation of this policy is being proposed in the middle of this uncertain economic climate, with “cuts” in funding and shrinking resources for conducting research. Some respondents stated that they would be less motivated to write grants when additional costs not related to their own research are proposed. There was also a concern of losing faculty to other institutions.

There is widespread perception that charging tuition to grants will reduce the number of graduate students, to the detriment of the University. Faculty consider graduate students “the lifeblood of the research programs”. Many believe that the role of graduate students in supporting research is underestimated and the decrease in their number will have a disproportionate effect on research. Some respondents stated that they will hire more post-doctoral associates instead of graduate students if the policy is implemented, but recruitment and retention of post-docs for a time sufficient for the research program may be difficult in Storrs. The perceived repercussions extend beyond the research component of the University. Many respondents noted that graduate education is an important University function. Some warned that reducing the number of graduate students will have a negative impact of unknown magnitude on graduate programs that are already struggling for funding.

The current climate for research funding is doubtless contributing to negative attitudes regarding the proposal among the faculty. Federal funding for research is stagnant (AAAS fiscal year reports on Research and Development, www.aaas.org/spp/rd/). After more than 10 years of increasing size of Research Project Grant (RPG) awards, award sizes leveled out in 2003 and are now dropping. RPG success rate was level until 2003 and is now decreasing. The overall NIH budget parallels this temporal pattern. Similarly, the NSF budget has leveled or fallen slightly since 2004. The state and nation are now in recession and further substantial cuts to state funding of the University, after a recent round of 3% reductions, are imminent. In this climate, University leadership must consider every possible unrealized source of new revenue; this report is an effort to consider one source in a comprehensive way.

A decision regarding the tuition waiver requires balancing revenues gains in dollar terms against cost in terms of academic character and competitiveness. From the faculty’s perspective, elimination of the tuition waiver would yield a net loss to the University of Connecticut.

Table 1. Graduate Research Assistants supported on grants at the University of Connecticut.¹

| Unit | Head Count | Salary (A) | Fringe/WC (B) | Tuition Waiver (C) | Total (A+B+C) |
|------------------------|------------|--------------|---------------|--------------------|---------------|
| CANR | 77 | \$1,223,868 | \$198,526 | \$1,151,286 | \$2,573,680 |
| CLAS | 180 | \$3,196,171 | \$520,976 | \$2,732,147 | \$6,449,293 |
| BUSINESS | 1 | \$9,408 | \$1,534 | \$8,442 | \$19,384 |
| EDUCATION | 57 | \$960,072 | \$153,011 | \$912,626 | \$2,025,709 |
| ENGINEERING | 161 | \$2,791,194 | \$454,563 | \$2,646,224 | \$5,891,981 |
| NURSING | 1 | \$11,006 | \$1,571 | \$19,488 | \$32,065 |
| PHARMACY | 24 | \$422,352 | \$67,868 | \$402,788 | \$893,009 |
| MATERIALS SCIENCE INST | 51 | \$926,134 | \$150,960 | \$876,554 | \$1,953,648 |
| VPMA | 1 | \$11,006 | \$1,794 | \$5,628 | \$18,428 |
| VPRGE | 43 | \$718,212 | \$117,069 | \$552,680 | \$1,387,961 |
| Grand Total | 597 | \$10,269,423 | \$1,667,872 | \$9,307,863 | \$21,245,158 |

¹The table reports data as of 11/8/2007. Units with no GRAs (e.g. Fine Arts) are not included in the table. Academic year tuition waiver amount is estimated by multiplying fall tuition waivers by 2. University of Connecticut Health Center GRAs are not included in this table; description of UCHC GRAs is provided in the text.

Table 2. Estimating the revenue that can be captured by eliminating the tuition waiver.

| Scenario | Expected Revenue | # of RA's | Tuition charge allowability | Grant size capped | Tuition rates used |
|----------|----------------------------------|------------------|---|--|---|
| 1 | \$9,307,863 | 597 | All agencies assumed to allow tuition charge | No | Actual tuition |
| 2 | \$3,276,605 | 597 | Only agencies estimated to allow tuition charge | No | In-State only |
| 3 | \$2,490,220 to \$2,752,348 | 431 to 486 | Only agencies estimated to allow tuition charge | Yes, in 50% to 75% of grants | In-State only |
| 4 | \$2,178,943 to \$2,408,305 | 431 to 486 | Only agencies estimated to allow tuition charge | Yes, in 50% to 75% of grants | In-State only and ABD rate of 50% pre-candidacy |
| UCHC | \$224,000 ² | 140 | NIH allows tuition charge | GRA compensation is limited ¹ | Limited to \$3200 |

¹ NIH has established the entry-level postdoctoral NRSA stipend (presently \$36,996 per year at the UCHC) as the limit for total compensation of a graduate student. Recoverable tuition limit of \$3200 per student/per year is estimated based on UCHC GRA salary and fringe of \$33,825.

² GRA salary of \$27,500 + 23% fringe equals \$33,825. Full tuition cannot be charged on GRA because of NIH cap on GRA compensation, so UCHC can recover \$3200 per student annually, or about \$448,000 for all student supported on GRA. This is discounted by 50% as these funds shift from categories that are subject to 50% IDC into tuition, which is not subject to IDC.

Table 3. Effects of Tuition on Grants/Contracts at Top-25 Public Universities.

| Institution ¹ | Grad Union ² | Tuition policy ³ | Pre-Candidate T&F ⁴ | Candidate T&F ⁵ | Candidate T&F Policy ⁶ | Stipend ⁷ | Fringe ⁸ | F&A | Costs per pcGRA ⁹ | Costs per cGRA ¹⁰ | Grad per Faculty ¹¹ | Δ Grad Enrollment ¹² | Δ Fed. Funds ¹³ |
|--------------------------|-------------------------|-----------------------------|--------------------------------|----------------------------|-----------------------------------|----------------------|---------------------|-------|------------------------------|------------------------------|--------------------------------|---------------------------------|----------------------------|
| GaTech | NU | AC | \$6,444 | \$1,008 | UD | \$22,000 | NA | 0.52 | \$48,755 | \$39,263 | 7.1 | 11.15% | 26.60% |
| OhioSt | NCBU | UD | \$9,438 | \$2,052 | | \$16,700 | 0.065 | 0.5 | \$36,116 | \$28,730 | 2.4 | 2.14% | 59.20% |
| PennSt | NU | PAC | \$14,228 | \$2,900 | | \$14,175 | 0.154 | 0.475 | \$36,708 | \$36,708 | 4.5 | -0.06% | 22.00% |
| Pitt | NU | AC | \$15,530 | \$1,650 | | \$14,000 | 0.075 | 0.515 | \$38,331 | \$24,451 | 3.8 | 8.95% | 22.20% |
| Purdue | NU | PAC | \$7,264 | \$346 | GRA NE | \$14,000 | 0.09 | 0.525 | \$28,449 | \$28,449 | 2.9 | 0.02% | 21.90% |
| Rutgers | CBU | UD | \$13,855 | \$1,144 | UD | \$19,815 | 0.195 | 0.545 | \$50,439 | \$37,728 | 3.2 | 1.20% | 17.60% |
| TexAM | NU | AC | \$7,256 | \$1,411 | GRA NE | \$19,500 | 0.083 | 0.455 | \$37,983 | \$37,983 | 3.3 | 7.13% | 16.40% |
| UCB | CBU | UD | \$9,579 | \$432 | GRA NE | \$24,318 | 0.17 | 0.53 | \$53,111 | \$43,964 | 4.3 | 6.14% | 9.90% |
| UCD | CBU | AC | \$9,651 | \$246 | GRA NE | \$24,318 | 0.25 | 0.52 | \$55,855 | \$46,450 | 2.2 | -20.51% | 19.10% |
| UCI | CBU | AC | \$9,642 | \$288 | GRA NE | \$24,318 | 0.23 | 0.515 | \$54,957 | \$45,603 | 3 | 6.03% | 27.00% |
| UCLA | CBU | AC | \$8,968 | \$180 | GRA NE | \$24,318 | 0.068 | 0.54 | \$48,964 | \$40,176 | 4.1 | 0.22% | 14.90% |
| UConn | NU | NC | \$10,052 | \$572 | GRA NE | \$18,818 | 0.268 | 0.52 | \$36,269 | \$36,269 | 4.8 | 8.71% | 11.80% |
| UCSB | CBU | AC | \$10,108 | \$262 | GRA NE | \$24,318 | 0.03 | 0.515 | \$48,055 | \$48,055 | 2.7 | 0.20% | 20.10% |
| UCSD | CBU | PAC | \$9,442 | \$238 | GRA NE | \$17,000 | 0.013 | 0.545 | \$36,048 | \$36,048 | 3.6 | 14.05% | 15.90% |
| UF | CBU | AC | \$7,478 | \$1,810 | GRA NE | \$16,800 | 0.093 | 0.465 | \$32,189 | \$32,189 | 5.9 | 11.28% | 27.40% |
| UGa | NU | PAC | \$6,150 | \$2,748 | | \$16,800 | 0.05 | 0.475 | \$31,797 | \$31,797 | 3.2 | -3.35% | -1.30% |
| UIowa | CBU | UD | \$7,158 | \$1,736 | | \$16,277 | 0.19 | 0.5 | \$36,212 | \$30,790 | 3.7 | -6.16% | 9.80% |
| UIUC | CBU | PAC | \$8,374 | \$586 | NB NF | \$15,000 | 0.061 | 0.585 | \$33,625 | \$33,625 | 5.1 | 0.88% | -0.70% |
| UMd | NCBU | AC | \$8,766 | \$1,470 | | \$13,098 | 0.32 | 0.5 | \$34,700 | \$27,404 | 4.6 | 5.37% | 14.50% |
| UMich | CBU | PAC | \$16,674 | \$10,606 | | \$16,070 | 0.163 | 0.545 | \$43,904 | \$43,904 | 4.2 | 1.64% | 15.00% |
| UNC | NU | UD | \$6,236 | \$3,986 | | \$14,000 | 0.211 | 0.475 | \$31,243 | \$28,993 | 5 | -1.09% | 17.30% |
| UTex | NU | AC | \$6,738 | \$1,820 | GRA NE | \$18,648 | 0.085 | 0.52 | \$37,492 | \$37,492 | 3.9 | -2.17% | 17.70% |
| UVa | NU | UD | \$11,240 | \$287 | | \$10,000 | NA | 0.515 | \$23,568 | \$17,619 | 5.6 | 7.93% | 17.50% |
| UWash | CBU | AC | \$9,417 | \$500 | GRA NE | \$19,512 | 0.133 | 0.56 | \$45,549 | \$45,549 | 3 | 0.68% | 15.00% |
| UWisc | CBU | AC | \$10,500 | \$2,560 | | \$16,029 | 0.245 | 0.485 | \$40,135 | \$32,195 | 3.1 | -4.19% | 24.10% |
| W&M | NU | NC | \$9,800 | \$600 | NB NF | \$12,000 | 0 | 0.44 | \$17,280 | \$17,880 | 1.7 | -2.25% | 32.40% |

¹GaTech: Georgia Institute of Technology; OhioSt: The Ohio State University; PennSt: The Pennsylvania State University; Pitt: University of Pittsburgh; Purdue: Purdue University; Rutgers: Rutgers University; TexAM : Texas A&M University; UCB: University of California, Berkeley; UCD: University of California, Davis; UCI: University of California, Irvine; UCLA: University of California, Los Angeles; UConn: University of Connecticut; UCSB: University of California, Santa Barbara; UCSD: University of California, San Diego; UF: University of Florida; UGa: University of Georgia; UIowa: University of Iowa; UIUC: University of Illinois Urbana-Champaign; UMd: University of Maryland; UMich: University of Michigan; UNC: University of North Carolina, Chapel Hill; UTex: University of Texas, Austin; UVa: University of Virginia; UWash: University of Washington; UWisc: University of Wisconsin; W&M: The College of William and Mary

²CBU: collective bargaining unit; NCBU: unionized but no collective bargaining unit; NU: no union

³AC: actual cost; NC: no cost; PAC: projected average cost; UD: unit decision

⁴For institutions with differential tuition across graduate programs, the amount listed reflects the rate for natural sciences. For PAC institutions, the amount required on grants is listed rather than the amount indicated on the tuition schedule.

⁵Amounts listed are based on the lowest possible fee for students who achieve candidacy status at their institutions. The amount listed is twice the per-term rate of tuition and fees for students who are candidates and are all-but-dissertation. At some institutions (particularly those listed in next column as GRA NE), the reduced rate is offered only for one semester, or in some cases additional semesters upon petition

⁶NB NF: For students on reduced rate, institution does not pay for benefits, and facilities (IT, library, labs/studios, office space, faculty time) are not available; GRA NE: Graduate RAs are not eligible for reduced rate; UD: unit determines if student may pay reduced fee

⁷The amount here is the stipend for an entry-level student.

⁸Fringe rates are estimates because institutions vary in how they are assessed. When value is NA the median value for the other institutions is used in calculations.

⁹Pre-candidate tuition and fees (if tuition policy is not NC), stipend and fringe, and F&A charges for stipend and fringe.

¹⁰Tuition and fees (if tuition policy is not NC), stipend and fringe, and F&A charges for stipend and fringe. This column uses candidate tuition and fees if GRAs are eligible for reduced rate (candidate t&f policy is not GRA NE), and uses precandidate tuition and fees if GRAs are not eligible for reduced rate

¹¹The ratio of graduate students per full-time faculty

¹²Percent change in grad enrollment 2003-2007; data from Common Data Set.

¹³Percent change in federal research funds 2003-2006; reflects most recent data available from NSF.

Table 4. Responses to survey questions. Results for each question are presented as the percentage that selected an alternative, and the total number who responded to the question (N).

| Academic Unit ¹ | CANR | CLAS | CoFA | SoE | SoB | SoPh | Other ² | N |
|----------------------------|--------|------|-------|-----|-----|-------|--------------------|-----|
| | 11.00% | 56% | 2.50% | 14% | 2% | 2.80% | 12% | 398 |

| Location | Avery Point | Hartford | Torrington | Waterbury | Stamford | Storrs | N |
|----------|-------------|----------|------------|-----------|----------|--------|-----|
| | 4.5% | 4.0% | 0% | 0% | 0.25% | 91% | 398 |

| Rank | Adjunct | Assistant | Associate | Full | N |
|------|---------|-----------|-----------|------|-----|
| | 2% | 25% | 33% | 39% | 398 |

| Research revenues ³ | \$0 - \$5000 | \$5001 - \$10,000 | \$10,001 - \$100,000 | \$100,001 - \$200,000 | > \$200,001 | N |
|--------------------------------|--------------|-------------------|----------------------|-----------------------|-------------|-----|
| | 20% | 6.0% | 32% | 23% | 19% | 396 |

| Funding sources ⁴ | Federal Government | State | Industry | Internal | Other |
|------------------------------|--------------------|-------|----------|----------|-------|
| | 43% | 15% | 12% | 15% | 15% |

| Graduated students ⁵ | 0 | 1-2 | 3-5 | 6-10 | >10 | N |
|---------------------------------|-----|-----|-----|------|-----|-----|
| | 16% | 24% | 31% | 15% | 14% | 396 |

Table 4. Responses to survey questions (cont'd).

| Current students ⁶ | 0 | 1-2 | 3-5 | 6-10 | >10 | N |
|-------------------------------|-----|-----|-----|------|------|-----|
| | 11% | 28% | 40% | 12% | 9.4% | 396 |

| Graduate tuition permitted ⁷ | None | Some | Most | All | No opinion | N |
|---|------|------|------|------|------------|-----|
| | 19% | 37% | 15% | 8.6% | 21% | 418 |

| Effect on GRAs ⁸ | Fewer | Same number | More | No opinion | N |
|-----------------------------|-------|-------------|-------|------------|-----|
| | 85% | 6.2% | 0.24% | 8.8% | 420 |

| Effect on postdocs ⁹ | Fewer | Same number | More | No opinion | N |
|---------------------------------|-------|-------------|------|------------|-----|
| | 27% | 7.9% | 37% | 28% | 417 |

| Effect on MS students ¹⁰ | Fewer | Same number | More | No opinion | N |
|-------------------------------------|-------|-------------|-------|------------|-----|
| | 71% | 8.1% | 0.72% | 20% | 419 |

Table 4. Responses to survey questions (cont'd).

| Funds for other expenses ¹¹ | Decrease | Stay the same | Increase | No opinion | N |
|--|----------|---------------|----------|------------|-----|
| | 86% | 3.6% | 0.24% | 10% | 419 |

| Funds for grad recruitment ¹² | Inadequate | Adequate | Generous | no opinion | N |
|--|------------|----------|----------|------------|-----|
| | 73% | 16% | 0.24% | 10% | 420 |

Allocation of new revenues¹³

| | 1 (Highest) | 2 | 3 | 4 | 5 (Lowest) | N |
|---------------------------------|----------------|------|------|------|------------|-------------------|
| University funded RA | 53% | 13% | 8.1% | 8.4% | 17% | 406 |
| Graduate student recruitment | 22% | 23% | 25% | 13% | 17% | 403 |
| Return of funds ¹⁴ | 35% | 19% | 18% | 9.2% | 19% | 401 |
| New faculty start-up packages | 9.8% | 15% | 22% | 18% | 36% | 399 |
| Equipment ¹⁵ | 11% | 12% | 19% | 17% | 41% | 396 |
| Additional graduate fellowships | 40% | 21% | 14% | 9.7% | 15% | 401 |
| Honors student research | 15% | 8.6% | 17% | 17% | 43% | 393 |
| Other | 42% | 4.3% | 7% | 2.6% | 44% | 115 ¹⁶ |

Table 4. Responses to survey questions (cont'd).

¹University of Connecticut Health Center faculty were not included in this survey for logistical reasons. Units listed are College of Agriculture and Natural Resources, College of Liberal Arts and Sciences, College of Fine Arts, School of Engineering, School of Business, School of Pharmacy.

²Probably most respondents in this category were in Neag School of Education, a response option that was inadvertently omitted from this question of the survey

³Full text of question: Approximate average research revenues per year (choose one)

⁴Respondents were asked to choose all options that apply; total number of responses to this question exceeds number of survey respondents

⁵Full text of question: Number of graduated MS and PhD students in the past five years

⁶Full text of question: Current number of MS and PhD students

⁷Full text of question: To my knowledge, of the funding sources I apply to, graduate tuition is permitted as a charged item on my grant applications

⁸Full text of question: If I am required to add the tuition charge for graduate students, my proposals will include:

⁹Full text of question: If I am required to add the tuition charge for graduate students, my proposal will include:

¹⁰Full text of question: If I am required to add the tuition charge for graduate students, my research group will include:

¹¹Full text of question: If I am required to add the tuition charge for graduate students, when I am awarded funds the funds available for other expenses on the grant will:

¹²Full text of question: Funds available for recruitment of graduate students are:

¹³Full text of question: A fundamental part of this plan, if implemented, would be to take money gathered from tuition payments on grants and earmark it for research and graduate education. Which type of investment would you favor? (high priority = 1, low priority = 5):

¹⁴Some return of funds to the faculty member or the member's academic unit

¹⁵Large multi-user equipment purchases

¹⁶Additional comments on proposal to eliminate tuition waiver and reallocation of revenue (16; all negative); return of funds to PI or academic unit (15, all in favor); use of funds to support graduate students (additional fellowships of various kinds, additional funding for TAs, additional funding for grad school; 18); use of funds in OSP/grant administration (2, in favor); use of funds for postdoctoral support or visiting professorships (4, in favor); use of funds for faculty (5, for example to offset equipment breakage, bridge funding, funding for outreach); miscellaneous (4, for example allocate to operating fund)

Appendix A. STORRS RESEARCH ADVISORY COUNCIL STATEMENT ON TUITION CHARGES TO GRANTS (February 2008)

The Storrs Research Advisory Council applauds President Hogan's articulated research and graduate education agenda. e.g., "We need to strengthen our research profile and also build more really top-notch graduate programs. Building a substantial presence at the graduate level and enhancing our sponsored research and other forms of research are exactly what a university needs to sustain its high position and move up from 25 into the top 20." (UConn Advance, Oct 1, 2007).

We propose that the ongoing discussion regarding recovery of graduate student tuition on faculty grants presents an ideal opportunity to quickly implement the President's vision. UConn's research profile has lagged behind that of its peers in a number of respects. At this time, the Administration has the opportunity to move UConn forward, by fostering an environment that directly supports the all-important graduate and research programs that a healthy Research I enterprise requires.

As active and productive members of the University's Research community, we find the proposal to charge graduate tuition to research grants to be counterproductive. We question whether the proposed action will generate sufficient revenue to counterbalance the multitude of negative effects it will have on UConn's research enterprise. For the following reasons, we believe this policy will make it unlikely that we will achieve our goal of improving our status among Research I institutions any time in the near future.

1. **Graduate student enrollment would decline because a major incentive for supporting grads would disappear.** Data from institutions (e.g., UMass) that have recently instituted graduate tuition charges (or their equivalent) to grants show that these Institutions have experienced declines in the number of graduate students. This is because charging tuition on grants makes graduate research assistants disproportionately expensive. Up to this point, a major incentive for PIs at UConn to request grant support for graduate students has been that the expense was reasonable when balanced against the amount of time committed to a project by a graduate student. Charging tuition to grants will put this amount over the threshold of reasonable PI behavior. A PI wishing to maximize his or her output from a particular award would be foolish (and perhaps even negligent) to request support for a graduate student, contributing 20 hours per week on a project, over a technical assistant or post-doctoral fellow, contributing 40 hours per week, given their respective annual costs (i.e., Tier II grad salary + fringe and tuition = \$31,469; technician lowest level salary + fringe = \$41,504; post-doc \$43,026; the hourly labor cost for a graduate student would be \$30, compared to \$20 for a technician or \$21 for a postdoc). The resultant predictable decline in number of graduate students would have a negative impact on UConn's national standing given that the number of Ph.D. degrees conferred annually is an important measure of a University's research productivity as indicated by most major indices (e.g., Lombardi, NRC, etc). However, we also note that this decline would reduce the amount of funds the Administration would capture from tuition charges. UConn currently has a total of ~5,500 graduate students, ~1,200 of which are supported on research assistantships, approximately half of which would be eligible for tuition charges. If this number were to decline, tuition charges are likely to yield only a few million dollars. The council wonders if the negative impact on UConn's research reputation alone is worth the gain in funds? (i.e., ~2.1 million if 500 RAs at 50% tuition, 4.2 million if 500 RAs at 100%).
2. **Tangible support for research.** UConn's research infrastructure lags well behind that of its peer institutions, and certainly well behind that of its aspirant institutions. However, the tuition waiver for graduate research assistants supported on external grants that UConn currently provides, represents a glowing example of an effective and tangible exception to this situation, and serves to compensate for other inadequacies in research support.

3. **Caps on new awards DO exist.** Many granting agencies and/or programs have specifically articulated caps on awards (e.g., NSF's PEET:750K/5yrs; USDA: 400K/2yrs; NSF IGERT: 650K/yr); others have relatively well understood upper limits that are readily obtained from program officers (e.g., NSF BS&I: 500Ktotal). Research costs increase each year, despite the fact that the expectations of funding agencies have certainly not declined, nor have the budgets of such programs increased. Forward thinking Institutions will recognize this reality and do what they can to enable their PIs to accomplish the goals of their projects, rather than require their PIs to make do with less overall research funding, and thus with fewer personnel. Maintaining the policy of waiving graduate tuition on grants will increase UConn's research productivity relative to that of institutions without such policies.
4. **Caps on continuing awards are also very REAL.** PIs are experiencing similar caps on continuing awards. For example, annual budget increases that PIs have garnered from agencies such as DOE barely cover annual standard salary and fringe increases. e.g., awards that provided support for 2 graduate students in the past, now support only 1.5 students; the tuition charge will reduce this by another half a student. Competitive renewals from NIH are restricted to increases of 20% over previous awards; while this would cover the proposed tuition charge, it would not serve NIH's purpose of allowing the researcher to cover increases in costs of supplies and annual salaries, fringe, etc.
5. **Graduate students are key elements of undergraduate research.** By all measures, a healthy graduate program is a pivotal component of the success of undergraduate programs at Research I institutions, which must include a diversity of undergraduate research opportunities. Through their informal interactions with undergraduate students, which occur most often in research lab settings, graduate students are key to the success of undergraduate research programs. Given the Administration's ambitious plans to substantially increase the size of the Honors Program, it seems clear that the proposed change in tuition charges will have a negative impact on undergraduate education at a particularly inopportune time. Because of the informal nature of their contributions to undergraduate research education, we note that the contributions of graduate students occur at no additional cost to undergraduate education.
6. **Harm would be unevenly distributed among units.** The hardship resulting from the proposed change would not be evenly distributed among schools and colleges. In fact, it would disproportionately affect some of our most research active science and engineering programs, many of which do not have the service courses necessary to buffer the effects of the penalty because they allow for more TA positions. Ultimately, the cost, given limited funds, would be transferred to graduate students in the form of salary cuts. As a consequence, some students would become second-class citizens, in particular teaching assistants (with full tuition waivers) would garner salaries that might greatly exceed those of research assistants.
7. **Reduction in IDC rate.** The RAC suspects that the proposed new policy would adversely affect future indirect cost rate negotiations with sponsoring agencies. The criteria that are considered in the assessment of this rate currently include personnel costs; the extent of the impact is unclear at this time but would bear consideration.
8. **Bad timing!** The current granting climate is unusually poor. Competition is severe. At this time PIs need as much assistance as possible from their institutions in order to remain viable, competitive members of funding communities. To remain competitive they must maximize their productivity with the relatively limited funds available to them. Charging tuition on grants would place an additional drain on already strained budgets, effectively increasing the indirect cost rate. This is the last thing PIs need in this difficult funding climate.

Those of us who have been meeting with OSP Director candidates over the past few weeks can attest that the experiences of these individuals at other Universities support our

recommendations. If tuition charges against grants were to be imposed at UConn, there would indeed be a decline in the number of grad students supported on grants.

The members of the RAC have seen no detailed, thoughtful cost-benefit analysis of the effects of this initiative on research and graduate education at the University. In the absence of such data, we have based our analysis on our collective two centuries of research experience. In the absence of concrete data to the contrary, we believe that our assessment of the tuition charge initiative is both realistic and accurate.

It seems ironic that, if the Administration were to be presented with a new initiative aimed at improving the University's research endeavors and graduate programs at a cost of several million dollars, they would surely be quick to embrace that initiative and that investment. The RAC asserts that a decision by UConn to continue its support of tuition waivers for graduate research assistants would serve as a well-timed research and graduate program stimulus that would greatly benefit UConn's standing in its community of peer institutions.

Appendix B. MEMBERSHIP OF THE TASK FORCE

Jeffrey Bernath, Graduate School Senate

Maria-Luz Fernandez, Nutritional Sciences

Sandra Hewett, Neuroscience

Kazem Kazerounian, Mechanical Engineering

Paul McDowell, Controller

Rachel O'Neill, Molecular and Cell Biology

John Salamone, Psychology

Eric Schultz, Ecology and Evolutionary Biology

Suman Singha, Interim Vice President for Research and Graduate Education

Winthrop Smith, Physics

Lisa Troyer, Senior Associate to the President and Chief of Staff